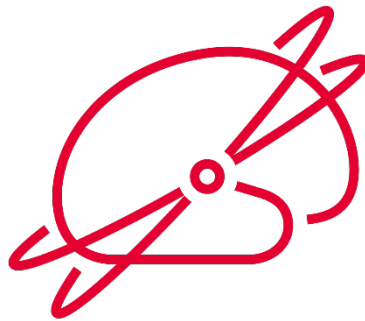


SDC

The university partnership
Denmark – China

Master's Programme in

Neuroscience and Neuroimaging



Academic regulations

Table of content

Legal Frame.....	3
Title and degree.....	3
Duration.....	3
4-years limit.....	3
Admission requirements.....	4
General programme regulations.....	5
Qualifications.....	5
Purpose.....	5
Qualification Profile.....	5
Structure.....	7
Commencement.....	8
Changes to the Academic Regulations	8

Legal Frame

Students enrolled in this programme are admitted as full-time students at University of Chinese Academy of Sciences.

The Academic regulations applies to students enrolled in the programme from 2019.

This master's programme is established within the framework of the following:

- Partnership Agreement between Graduate University of Chinese Academy of Sciences and University of Copenhagen (KU), Aarhus University (AU), University of Southern Denmark (SDU), Aalborg University (AAU), Roskilde University (RUC), Technical University of Denmark (DTU), Copenhagen Business School (CBS), IT University of Copenhagen (ITU), on the establishment of the Sino-Danish Centre for Education and Research, Graduate University of Chinese Academy of Sciences, signed on 12 April 2010
- Agreement between Graduate University of Chinese Academy of Sciences (GUCAS) and University of Copenhagen (KU), Aarhus University (AU), University of Southern Denmark (SDU), Aalborg University (AAU), Roskilde University (RUC), Technical University of Denmark (DTU), Copenhagen Business School (CBS), IT University of Copenhagen (ITU) concerning Master's Programmes at Sino-Danish Centre for Education and Research, Graduate University of Chinese Academy of Sciences, signed on 29 August 2011
- Agreement between Graduate University of Chinese Academy of Sciences and Aarhus University concerning Provision of the Master's Programme in Neuroscience and Neuroimaging at Sino-Danish Centre for Education and Research (SDC), Graduate University of Chinese Academy of Sciences, signed on 29 August 2011.

Students must observe and act accordingly to the following rules issued by the SDC Directors:

- Courses and Exams
- Exam regulations
- Thesis regulations 10 steps
- Avoid cheating on exams
- Student complaints

Students must also observe and act accordingly to Rules and Regulations for UCAS International Students. SDC rules are published on Moodle.

Title and degree

The degree awarded by Aarhus University is Master of Science in Neuroscience and Neuroimaging. The degree awarded by University of Chinese Academy of Sciences is Master of Neurobiology/Biophysics.

Duration

The master's programme has a duration of two academic years equivalent to 120 ECTS points (European Credit Transfer System). 60 ECTS points correspond to one year of full-time studies.

4-years limit

All SDC students must complete their Danish and UCAS degree within 4 years from the enrolment. This period includes leave of absence. It is possible to apply for an exemption due to illness or other extraordinary circumstances.

The 4-year limit for the Danish degree applies for the 2016 cohort and onward. Students in the 2012-2015 cohorts have to complete their studies before the 1st of January 2020 to obtain their Danish degree.

When choosing thesis period *Danish/International students* must be aware of UCAS' 4 years limit for awarding diploma. UCAS' degree application procedure **STEP 10 CN**(see Thesis regulations 10 steps) has to be completed within four years from enrolment. This period includes leave of absence.

Admission requirements

Admittance to the MSc programme in Neuroscience and Neuroimaging is based on:

- A successfully completed bachelor's degree (or equivalent) or higher.
- A high-level of English language proficiency.

Eligible bachelor's degrees to the MSc programme in Neuroscience and Neuroimaging include:

- BSc in Biochemistry
- BSc in Biology
- BSc in Biomedicine
- BSc in Biotechnology
- BSc in Biomedical engineering and informatics
- BA in Cognitive science
- BSc in Electrical engineering
- BSc in Healthcare technology engineering
- BSc in Medical chemistry
- BSc in Medicine
- BSc in Molecular biology
- BSc in Molecular medicine
- BSc in Nanoscience
- BSc in Pharmacology
- BSc in Physics
- BSc in Sports science

(List not exclusive)

Number of students

The programme admits a maximum of 20 students each year.

According to national legislation in China, Chinese citizens cannot apply for admission to Neuroscience & Neuroimaging through a Danish university. Instead, Chinese Citizens must apply for admission through University of Chinese Academy of Sciences.

Selection Criteria

Students must be above average in at least one of the following categories:

Mathematics & technology	Biology & chemistry	Medicine & cognition
E.g. mathematics, statistics, informatics, programming, classical physics	E.g. biology, molecular biology, cytology, chemistry, pharmacology	E.g. physiology, anatomy, biomechanics, cognition

In evaluating qualified applicants, the admissions committee assesses each applicant on the basis of the following criteria:

1. Academic background (75%)
2. Other relevant experiences (25%)

Academic background:

This criterion includes average mark of BSc degree and the average mark of relevant courses weighted after the study load (ECTS credits)

Other relevant experiences:

Relevant work experience, Bachelor projects, laboratory projects etc.

The assessment is based on the supplied documented information and can, thus, not include marks/grades obtained after application deadline

General programme regulations

The language of instruction in the SDC master's programmes is English. Teaching, supervision and assessment will be carried out in English.

Students will be graded according to both the Chinese and the Danish grading scale. However, for the Master's Thesis, students will be graded according to the Chinese 4-point scale. See Thesis regulations 10 steps.

Leave of absence can be granted to students on the grounds of becoming a parent, illness, military service or exceptional circumstances.

Students who wish to complete degree programme elements at another university or institution of higher education in Denmark, China or abroad as part of their degree programme may apply the Teaching Committee for advance approval of transfer credit for planned subject elements. Students can maximum be granted 30 ECTS credit transfer.

Either the Teaching Committee or the SDC Directors may grant exemptions to the Academic regulations or other SDC rules. Applications for exemption are submitted to the SDC Secretariat

DK	12	10	7	4	02	00	-3
CN	100-95	94-90	89-76	75-61	60	59-40	39-0

Qualifications

Purpose

The programme aims to combine the different approaches to neuroscience and neuroimaging from technical engineering to natural science and life science. Through this programme, graduates achieve a broad understanding of neuroscience from the molecular and cellular level to the physiological and anatomical level, giving them a wider and deeper understanding of the function of the nervous system and its disorders. At the same time, graduates will gain an understanding of the most widely used neuroimaging techniques, which will enable them to participate and perform both pre-clinical and clinical neuroimaging studies.

The unique combination of advanced imaging techniques and a broad knowledge of basic and clinical neuroscience topics will enable graduates to combine the diverse scientific fields involved in neuroscience research and thereby facilitate interdisciplinary research.

Qualification Profile

Knowledge

The graduates will have research-based knowledge in:

- Neuroanatomy and general physiology.
- Mathematics and statistics related to the field.
- Digital signal processing and analysis.

- Molecular Neurobiology.
- The different imaging modalities: ultra sound, MR, PET, SPECT, MEG, and EEG.
- Diseases of the nervous system.
- An in-depth understanding of the knowledge in the above topics that enables the graduate to scientifically reflect on this knowledge to identify scientific problems within neuroscience and/or neuroimaging.

Skills

The graduates will be able to:

- master technological skills within the topics of the education to perform scientific research, individually or as part of an interdisciplinary research collaboration.
- select the best scientific/technological approach to a given research problem based on the acquired theoretical, technical and practical skills from the courses of the education.
- develop, optimise, and implement new analysis and solution tools in neuroscience and neuroimaging alone or in collaboration with clinicians and/or researchers.
- communicate scientific achievements and professional topics to layman as well as the scientific community.

Competences

The graduates will be able to:

- Play a central role in the establishment of professional collaborations both interdisciplinary and within the disciplines of the education through the interdisciplinary approach combining topics from the technical, natural, and health sciences.
- Collaborate to develop and/or implement novel techniques and/or medicotechnical equipment.
- Educate health professionals in the use and operation of advanced neuroimaging equipment.
- Cope with complex and/or unpredictable scientific obstacles through the use of known methods in a novel setting or by developing new approaches.
- Keep updated within the neuroscience and neuroimaging field as well as within the chosen scientific specialisation.

Structure

The programme contains the following elements

Semester	Course / Programme element	Exam	Grading	Examiners	ECTS	
1	Basic Neuroscience (BNS)	Assignment and written	7/100 scale	Internal	15	
	Fundamental Biomedical Signal Processing (FBSP)	Written	7/100 scale	Internal	10	
	Medical Imaging Techniques (MIT)	Written	7/100 scale	Internal	5	
2	Magnetic Resonance Imaging (MRI)	Written	7/100 scale	Internal	5	
	Pattern Recognition and Predictive Modelling in Neuroscience (PRPM)	Oral	7/100 scale	External	5	
	Neuroscience in a Clinical Perspective (NCP)	Written	7/100 scale	Internal	5	
	Magnetoencephalography and Electroencephalography (MEEG)	Oral	7/100 scale	Internal	5	
	Integrative Neuroimaging (INI)	Assignment	7/100 scale	Internal	5	
	<i>One of the following electives must be chosen:</i>					
	Advanced Neuroimaging	Oral	7/100 scale	Internal	5	
	Advanced Neuroscience	Oral	7/100 scale	Internal	5	
	Cognitive Science	Oral / synopsis	7/100 scale	Internal	5	
3	Thesis	Assignment and oral	7/4 scale	External	60	
4						

The first two semesters provide the common core of the programme. The first semester starts out with Basic Neuroscience and Fundamental Biomedical Signal Processing where the students, coming from very different backgrounds, acquire the necessary knowledge and competences needed to follow the tailored courses in the rest of the program. Later in the semester and in the second semester more advanced courses follow that integrate both neuroimaging and neuroscience.

At the end of the 2nd semester, the students will select one of three possible 2nd semester elective courses (5 ECTS). The 3rd and 4th semester is devoted to writing the master's thesis.

Commencement

Effective as of 01.09.2019

Changes to the Academic Regulations

From the autumn semester 2019, the course descriptions are now placed in a separate course catalogue for the autumn and spring semesters.

10. October 2019. New course description for master thesis with two new additional sections; 'Necessary Steps for the Master Thesis' and 'Neuroscience and Neuroimaging Symposium'.

16. December 2019: Updated admission requirements that take effect from September 2020.